

Y6 Evolution & Inheritance

organisms	any living thing.
DNA	a chemical that carries all the instructions that an organism needs to live.
gene	a small section of DNA that is responsible for a characteristic/trait .
characteristic	a feature or quality which can be used to identify an organism, can be caused by genes or the environment .
trait	a genetic characteristic inherited from one's parent's.
inherit	passing on of genes from one's parents or ancestors .
evolution	the change in traits of a species over several generations which relies on the process of natural selection .
natural selection	the process whereby organisms adapt to their environment survive and reproduce offspring .
adaptation	the process of change where an organism or species becomes better suited to its environment .
offspring	a living organisms young/child .
crossbreeding	when two different species are mated (animals) or hybridized (plants)
variation	the differences between living things which can be caused by genetic and environmental factors.
theory	an explanation for scientific observations.
resistance	lack of sensitivity to something because of a genetic change .
biodiversity	the variety of animal life on Earth.
Human characteristics: Some of our characteristics are inherited , some are caused by the environment we live in and some are caused by a combination of both .	
inherited characteristics	blood group, ability to roll tongue, eye colour, lobed ears.
environmental characteristics	scar from an accident, accent with which you speak, flower colours on hydrangeas.
both	height, weight, hair colour, skin colour.

Variation between **different species** is usually **greater** than the variation between the same species. There are 12 different species of fox, all from the same **ancestors**. The pictures below show the **variation of characteristics** between four different types of fox. Each type of fox has **adapted** to its **environment over time**.



Charles Darwin Facts:

- Famous English naturalist
- Born 1809
- Died 1882
- Created the **theory of evolution**
- Provided substantial evidence for the process of **natural selection**

Theory of Evolution

- There are two different **variations** of peppered moth: light and dark
- Before the **industrial revolution**, most were light and few were dark
- During the industrial revolution, trees became black with pollution
- The light peppered moths got eaten by **predators** because they weren't camouflaged
- So, the dark peppered moth became more **popular**
- After the industrial revolution, the trees became cleaner
- The dark peppered moths got eaten because they were no longer camouflaged and the lighter moths became more popular

Evidence for evolution:

- Fossils exist that show what organisms were like many millions of years ago
- Fossils show **variation** over time for the same species and support the theory of evolution.

Fish fossil



Turbot skeleton



Turbot

